

C. H. THOMPSON.

Tuyere.

No. 27,089.

Patented Feb. 7, 1860.

Fig. 1.

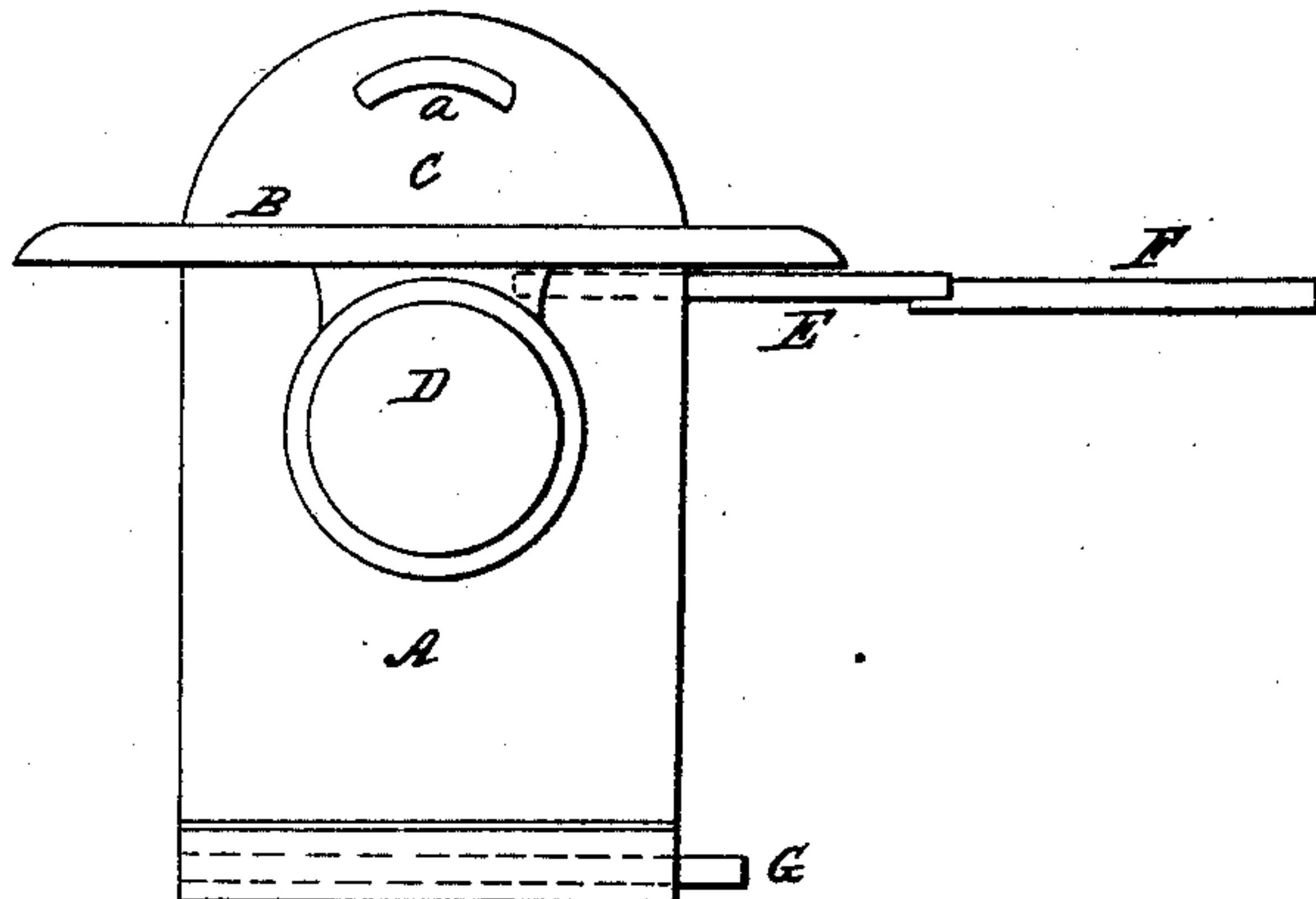
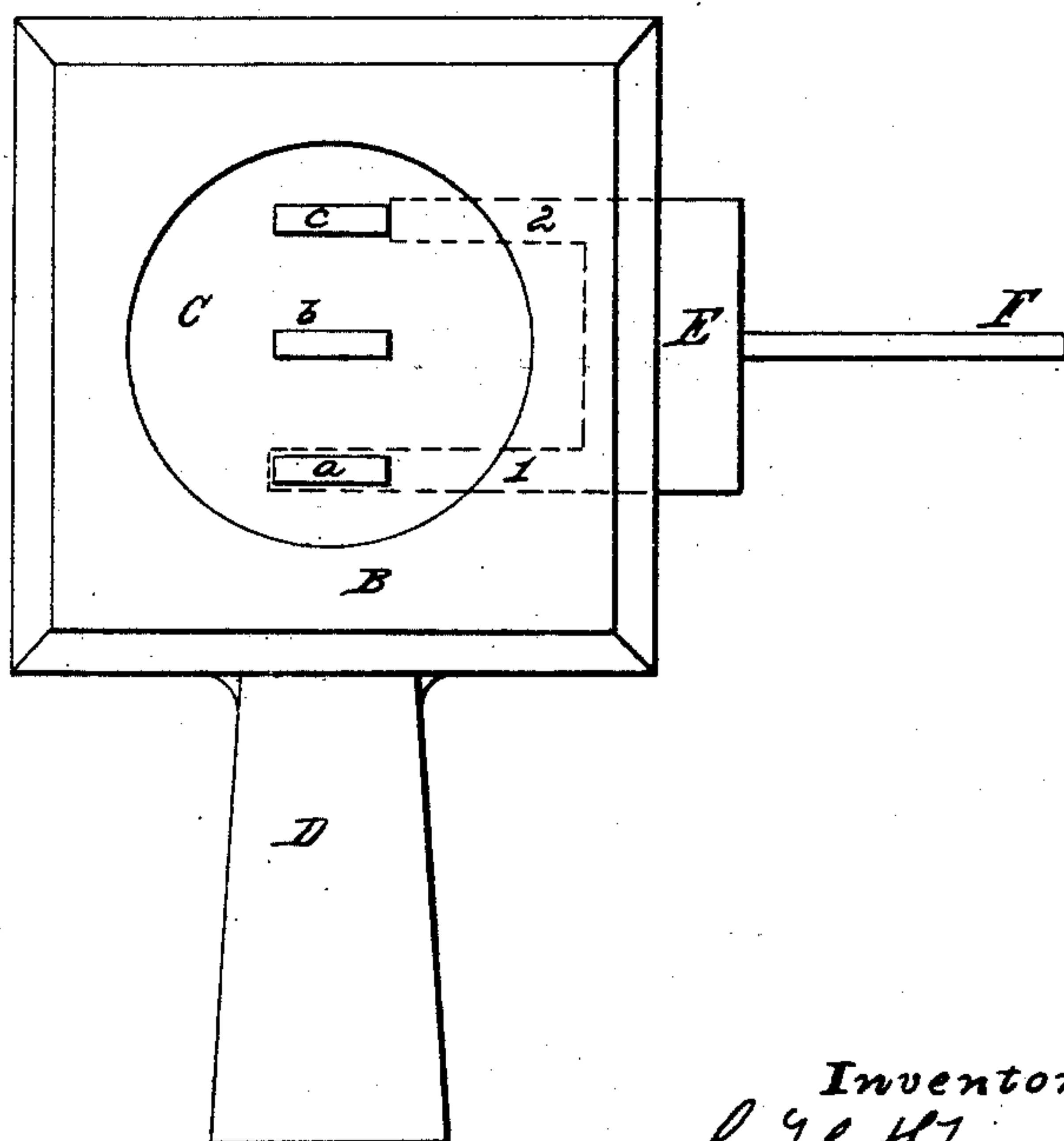


Fig. 2.



Witnesses:
Emerson Fay
Rufus Day
Foster D. Dexter

Inventor:
C. H. Thompson

UNITED STATES PATENT OFFICE.

C. H. THOMPSON, OF ORANGE, MASSACHUSETTS, ASSIGNOR TO HIMSELF, GEO. CARPENTER,
AND J. S. EMERY, OF SAME PLACE.

TWYER.

Specification of Letters Patent No. 27,089, dated February 7, 1860.

To all whom it may concern:

Be it known that I, C. H. THOMPSON, of Orange, in the county of Franklin and Commonwealth of Massachusetts, have invented
5 a new and useful Improvement in Blacksmith's Twyers; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the
10 accompanying drawings, forming a part of this specification, in which—

Figure 1 is a side elevation, and Fig. 2 a top view.

Like parts are indicated by the same letters in both figures.

The nature of my invention consists in the use, and application to a twyer, of a straight, forked, valve, with one prong longer than the other, to operate in combination with the openings (*a b c*) in the top of the air-box, so that one, two, or three of said openings, or one and a part of the others, may be used for admitting the air, at
20 pleasure; while at the same time it is intended to be simpler and cheaper than any
25 other in use, and more easily kept in repair and cleared of obstructions.

To enable others, skilled in the art, to make and use my invention, I will now describe its construction and operation.

A is a cast-iron box, the top (B and C) being cast in one piece with it, as also the pipe, D, for conducting the blast from the bellows, or blower.

35 G (Fig. 1,) is a valve forming, when closed, a bottom to the air-box, A, and made to slide in grooves in the two sides of the box, the object of this valve being to allow the ashes and dirt to drop out, when it is
40 withdrawn.

The upper side of the top of the air-box is round and bulging, as shown in the figures, the under side being flat.

a, b, c are openings in the top-piece, C,
45 to admit the blast from the box under the coal in the forge.

E is the straight, forked valve passing through a slot in the side of the box close to the under side of the top-piece, C, as represented in Fig. 1; F being an iron rod, of
50 any convenient length, by means of which the blacksmith can open, or shut, the valve. This valve, as shown by dotted lines in Fig. 2, is forked, the prong, 1, being the length of one of the openings longer than prong,
55 2; so that the aperture, *a*, may be partially, or entirely, closed by prong, 1, before aperture, *c*, is closed at all by the prong, 2. The middle opening, *b*, is never closed. In Fig.
60 1 all three of the apertures are open; in Fig. 2, two are open—while, by pushing the valve still further in, it is obvious that all, but the middle opening, will be closed. Thus the amount of air admitted to the coal can be regulated at pleasure. And as the prongs
65 present so little surface to the coal and dirt, it is much less liable to get clogged than any other device with which I am acquainted; and in case it should get clogged, it can be more readily cleaned, inasmuch as the whole
70 valve, E, can instantly be withdrawn from the box, and as readily replaced. Being so simple in its structure, it is not only cheaper, but also more durable and less liable to get out of order, I think, than any other inven-
75 tion for a similar purpose extant.

Having thus described the construction and operation of my improvement, what I claim as my invention and desire to secure by Letters Patent is—

80 The forked valve, E, constructed, arranged, and operating in combination with the perforated top of the air-box, substantially as set forth and for the purposes described.

C. H. THOMPSON.

Witnesses:

EMERSON FAY,
RUFUS DUY,
FOSTER D. DEXTER.